Lewis and Clark Lake
2009 Fall Fish Survey
2009 Angler Creel Summary

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The following text and graphs is a summary of the fall gill net survey conducted on October 7-8, 2009 and an angler creel survey conducted from April through October 2009. During the fall netting survey, 5 150-ft experimental mesh gill nets were set in 5 locations to gather data on the reservoir fish population. Major target species include walleye, sauger, white bass, and channel catfish. In contrast to other survey years, all nets were set along the north bank of the reservoir due to continued north winds resulting from a series of cold fronts. Four of the five stations are annual sample sites located from near the Mennonite Colony on the west end of the lake to near the Midway Area on the east end of the lake. Water temperature was near 50 F, which was lower than other sample years. A series of cold fronts and unusually cold September and early October weather resulted in low water temperatures. The cold water undoubtedly had a negative effect on the net catch of white bass, channel catfish, and other non-target species such as carp, buffalo, and gizzard shad. Due to poor weather conditions, the annual young-of-the-year night-time electrofishing survey was not conducted.

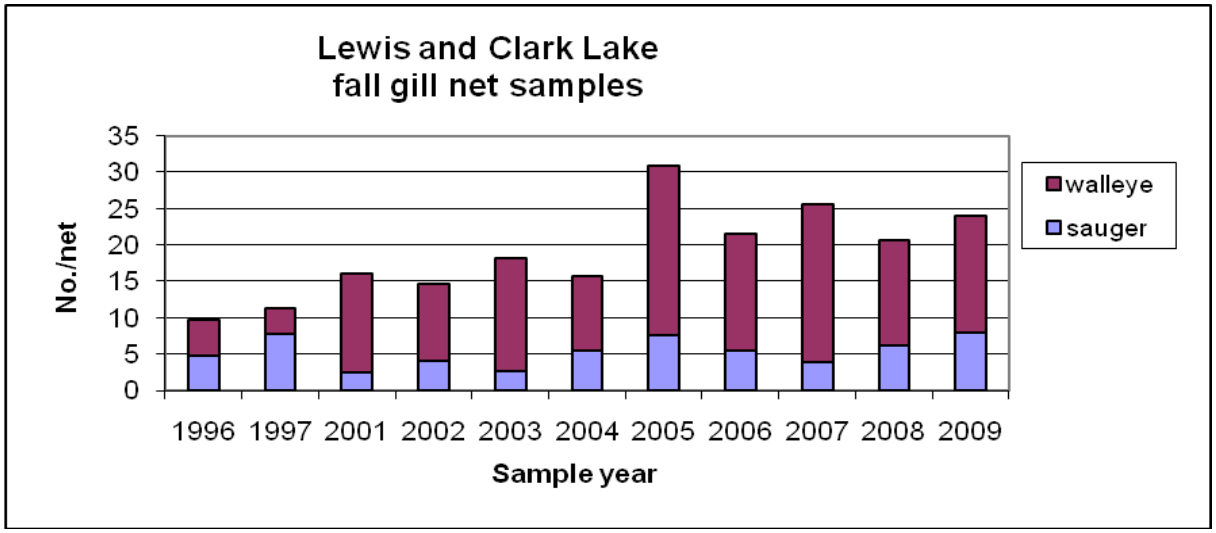
The 2009 angler creel survey was conducted on 15 randomly selected days per month from April through October. Ten weekdays and 5 weekend days per month were surveyed. The creel consisted of angler pressure counts conducted every creel day from the dam west to Springfield. Once counts were made, the creel clerk conducted angler interviews around the lake as time allowed. Angler interviews gather data such as species composition, fish harvested and released, time spent fishing, angler residence and species sought. In addition, length data is collected for harvested and released fish by species.

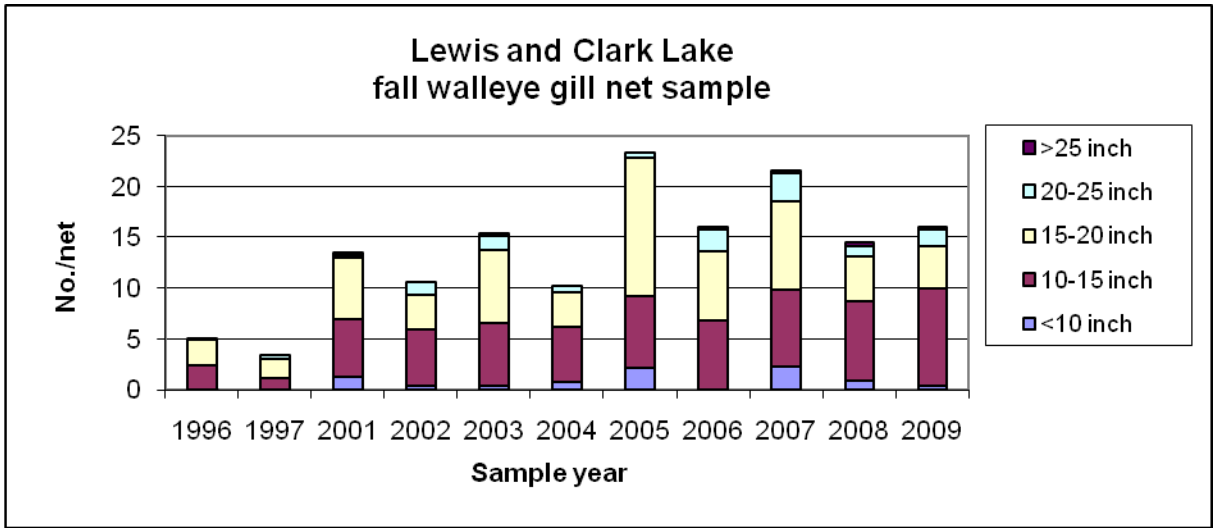
2009 Gill Net Survey Results

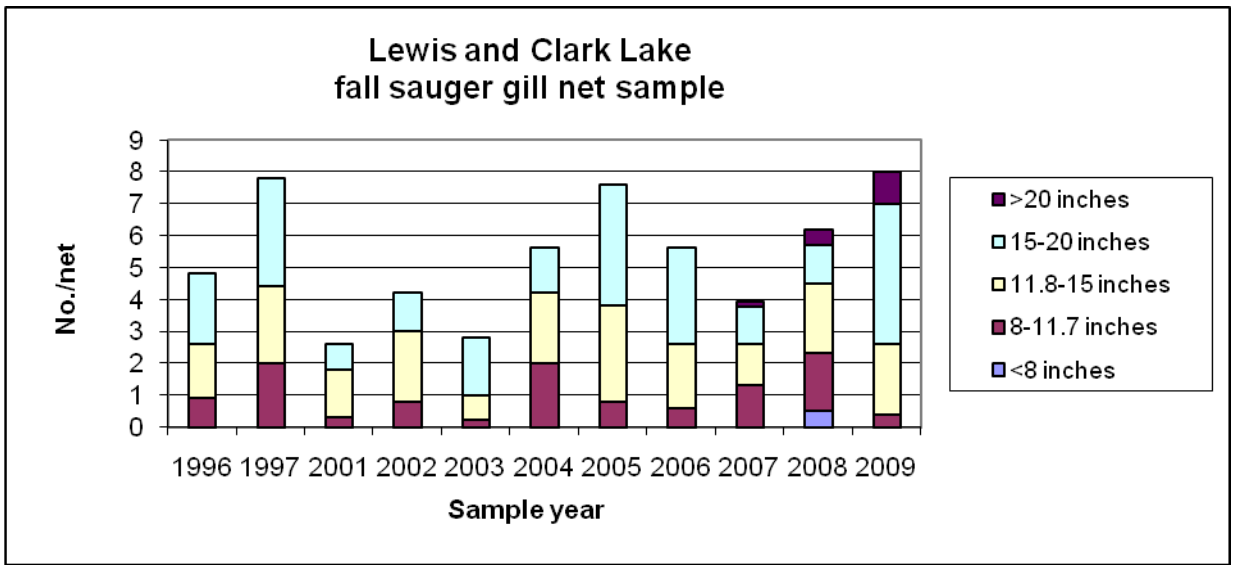
Walleye and Sauger

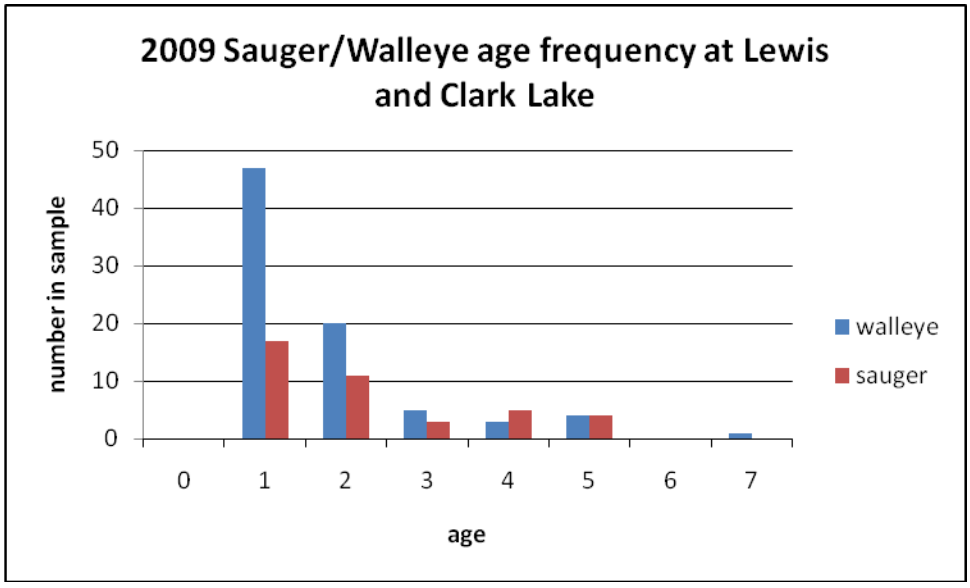
Net catch-per-unit-effort (CPUE) in 2009 was at or above the previous 5 year mean for walleye, sauger and the combined catch. Both species combined had a CPUE of 24 with the walleye CPUE of 16 and sauger CPUE of 8. CPUE by length category for both species indicates good recruitment with an acceptable number of harvestable sized fish (> 15 inches). Approximately 40% of the walleye and nearly 70% of the sauger in the October sample were over 15 inches. Angler pressure and harvest plays a major role in the configuration and age structure of sauger and walleye. The age frequency graph illustrates the high numbers of age-1 and age-2 fish and then the drop in numbers age-3 and beyond.

Age-3 fish have grown above 15 inches in length. Fish are represented to age-7 so some quality individuals are present in the population. In fact, 18% of the sauger and 14% of the walleye in the October sample exceeded 20 inches in length. As long as walleye and sauger reproduction and recruitment remains at current levels and water management remains stable, fishing at Lewis and Clark Lake should remain good to excellent.



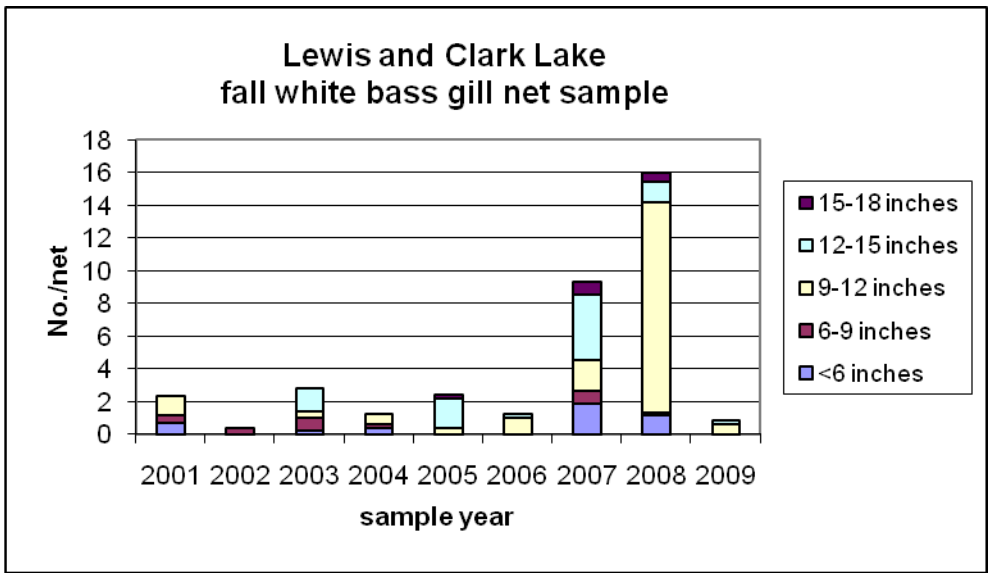






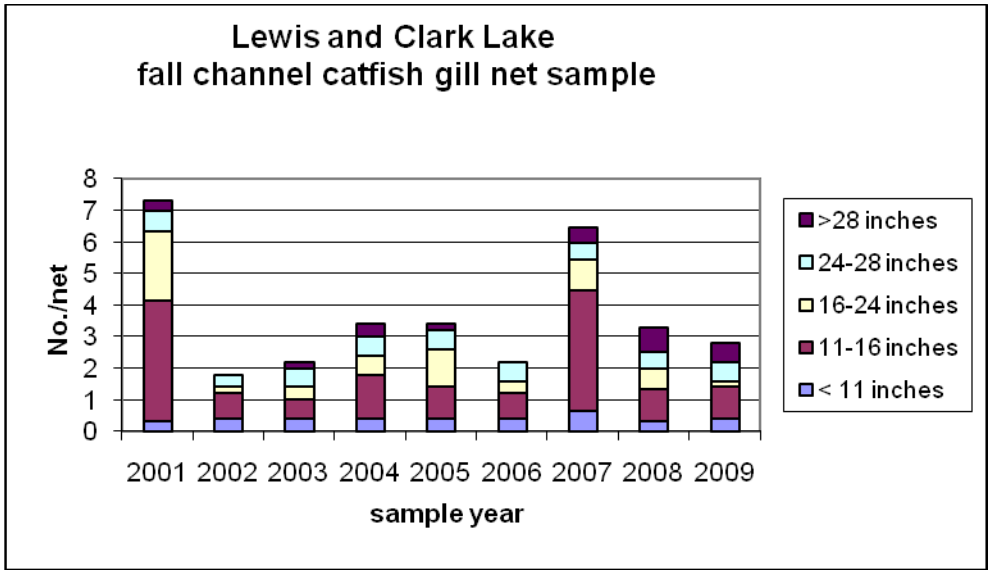
White Bass

The white bass gill net CPUE in 2009 was very low. Although the white bass catch can be sporadic due to the schooling nature of the fish, it is believed the population of white bass in the reservoir is high based on three consecutive years of good to excellent reproduction and recruitment. Water temperatures during the 2009 October sampling were low enough to negatively affect the white bass sample catch. In general, the colder the water the poorer the sample catch. Based on the white bass harvest documented in the 2009 creel survey, anglers should find good white bass numbers and white bass angling in 2010.



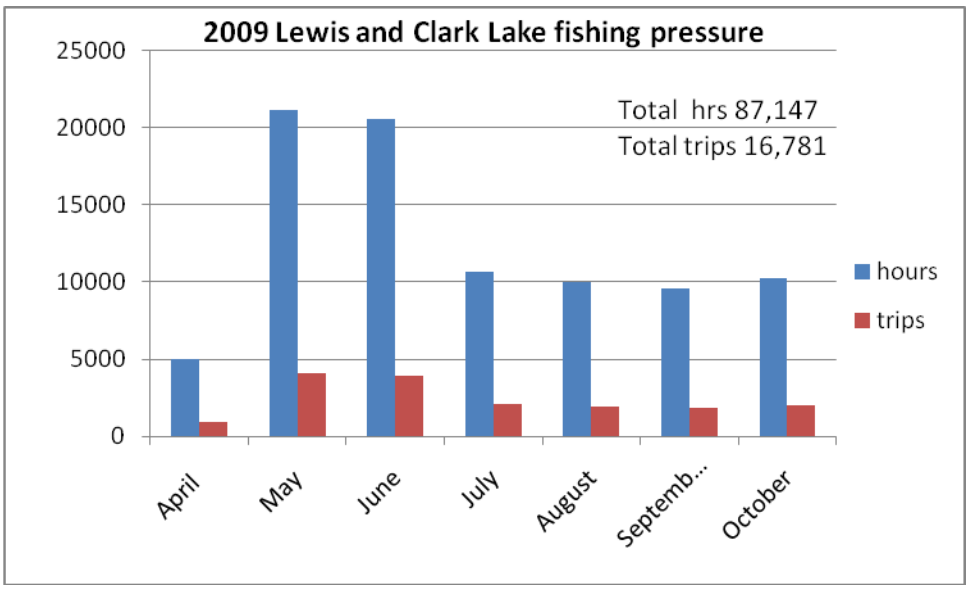
Channel Catfish

The channel catfish gill net CPUE in 2009, while low, was near normal for the reservoir. Most years, few channel catfish are sampled by gill net gear. Once again, the low water temperature during the October sample may also have had a negative effect on the channel catfish catch. Some large to trophy catfish are found in the lake and make for exciting action for anglers who seek them.

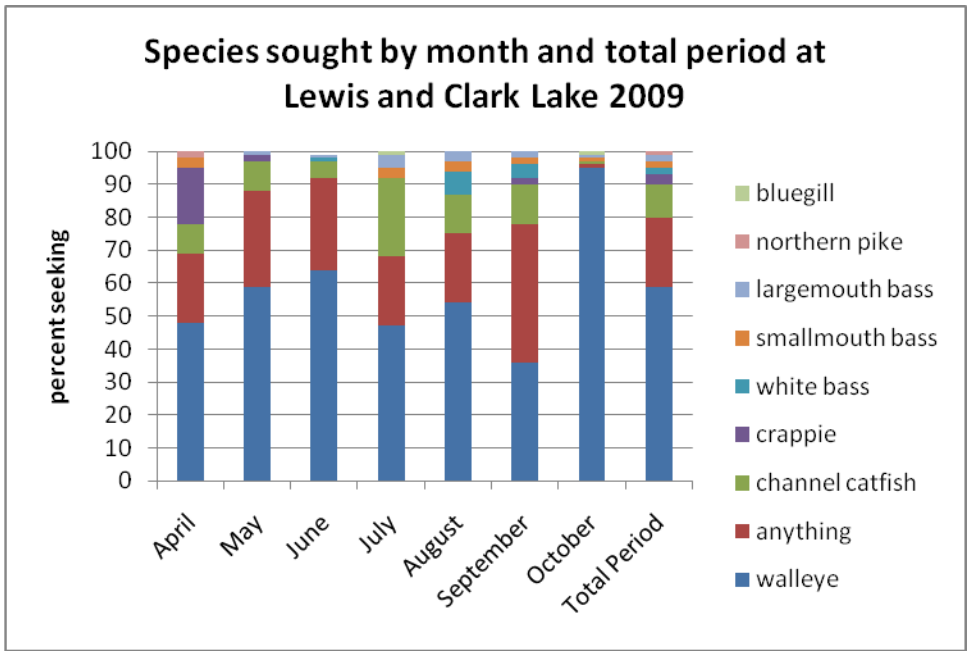


2009 Creel Survey Results

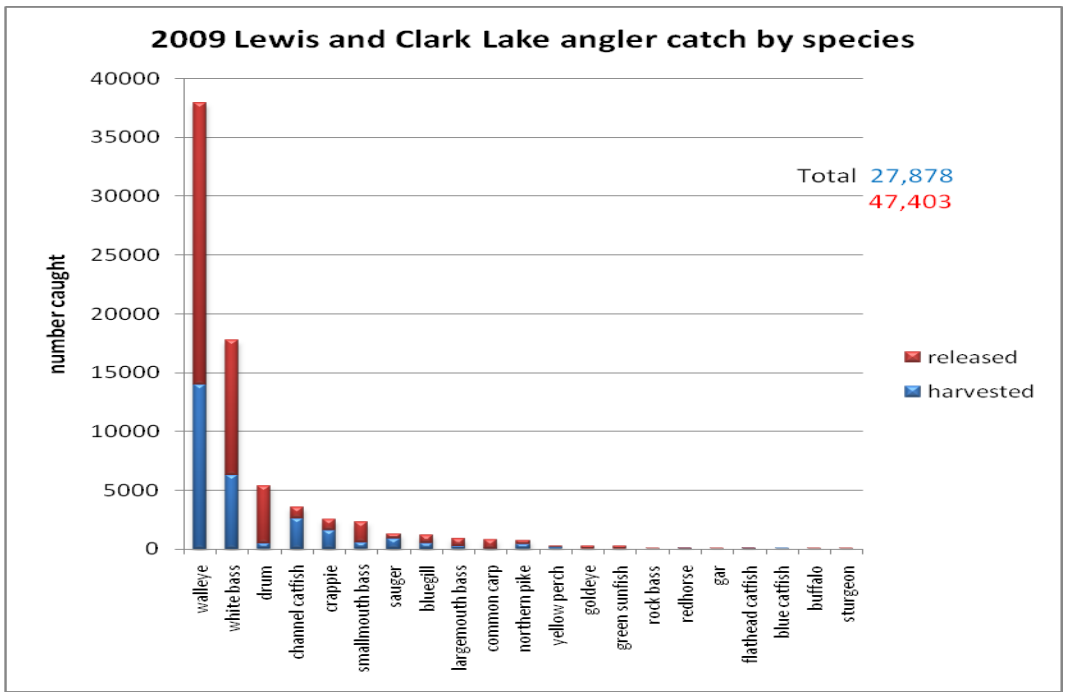
The 2009 angler creel survey period included the months of April through October and consisted of 104 creel days. Fifty percent of the weekend days were surveyed along with 47% of the week days. In all, 732 angler interviews were conducted. Total fishing pressure estimated over the creel period was 87,147 hours consisting of 16,781 angler trips. Anglers contacted represented 28 Nebraska counties, 19 South Dakota counties and 5 other states, most frequently Iowa and Minnesota. The highest fishing pressure was recorded for May and June with over 20,000 hours each month. Fishing pressure was steady July through October with about 10,000 hours each of those months.



Overall, walleye was the most sought after species by anglers in 2009 with 59% of the effort. Many anglers were opportunistic as 21% contacted stated they were fishing for anything they could catch. Anglers at Lewis and Clark do show some seasonal changes in target species, which is typical for most multi-species reservoirs. Anglers pursuing channel catfish made up a higher percentage of those contacted in the months of July, August and September than other months. By October, most opportunistic anglers ,those who don't care what they catch, dwindled and the vast majority of the anglers on the reservoir were seeking walleye (and sauger).



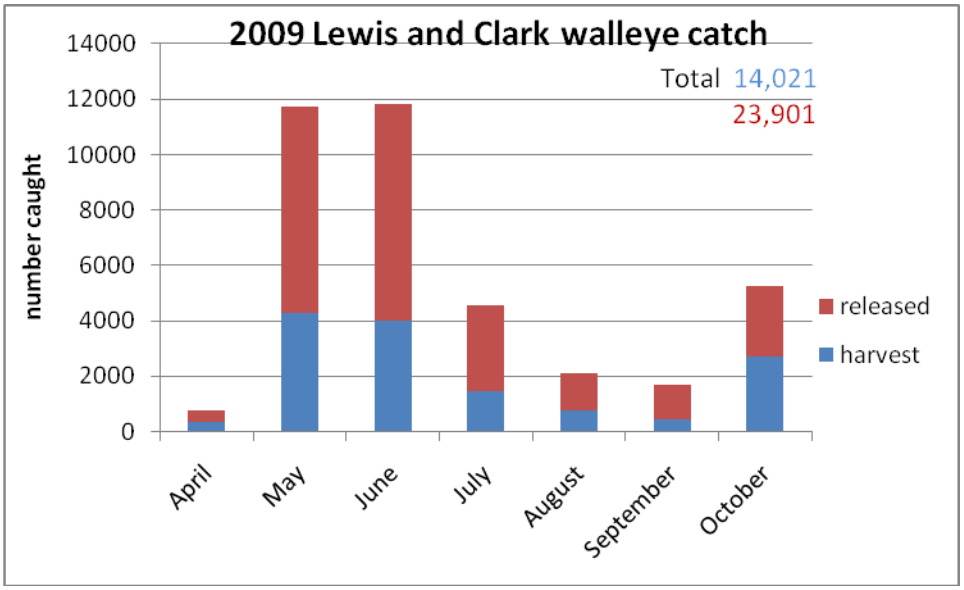
Walleye was the most abundant species caught in Lewis and Clark Lake in 2009 followed by white bass, drum and channel catfish. In all, over 47,000 fish comprised of 21 different species were caught by anglers, indicating the tremendous diversity of species found in this Missouri River reservoir.

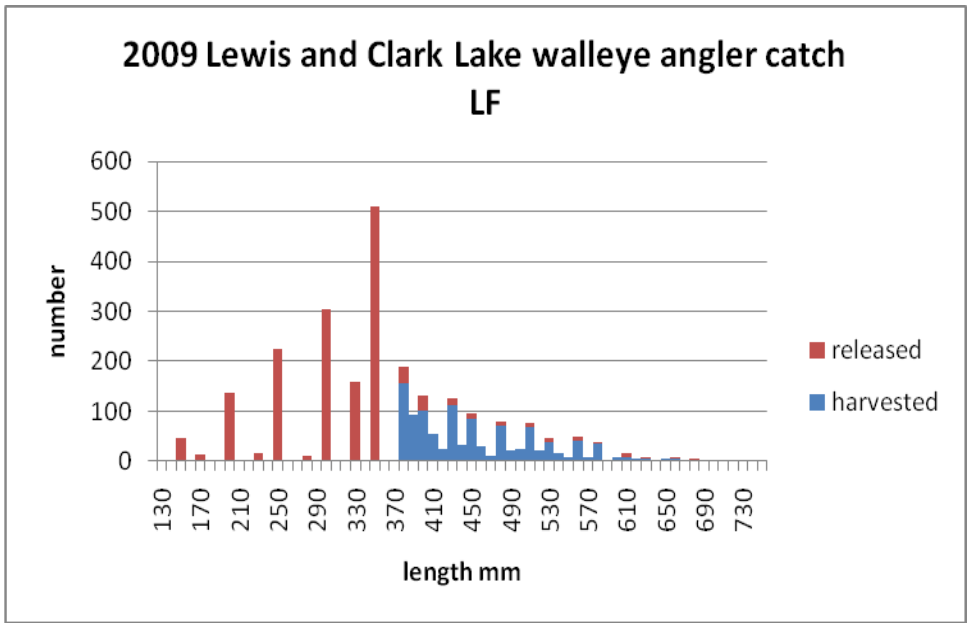


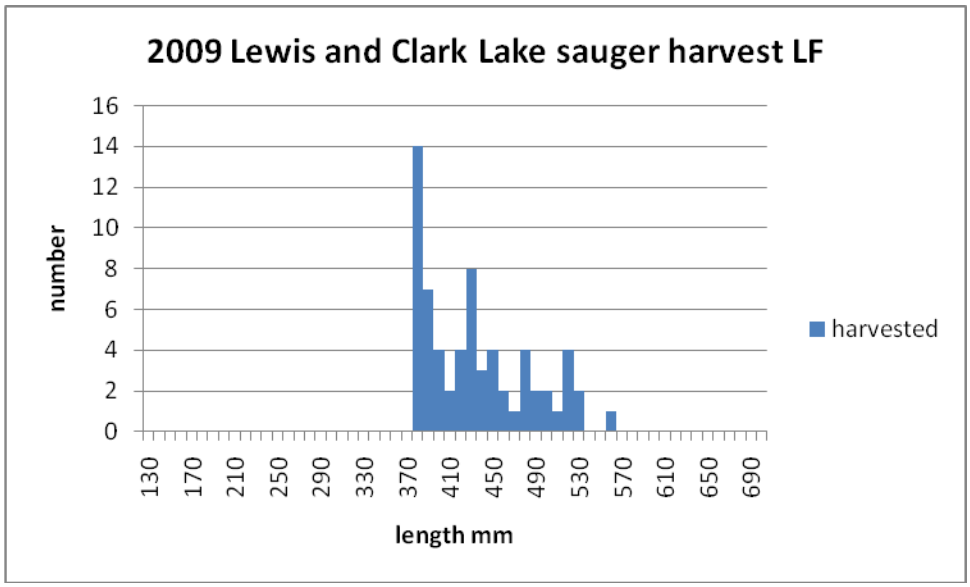
The following text and graphs concentrate on major sport fish species.

Walleye/Sauger

The estimated walleye catch by anglers in 2009 was 23,901 with 14,021 harvested. The highest catch and harvest occurred in May and June. As typical with Lewis and Clark Lake, catch decreases during the warm summer months and then increases in the fall. October catch and harvest increased over the previous three months and anecdotal information suggests November likely had more walleye and sauger angler effort than October. Sauger harvest was relatively low estimated at about 900 fish with about 400 released. The harvest number may be biased downward due to the fact that if the fish showed any hybrid tendencies it was called a walleye rather than sauger. Sauger release estimates have always been low at this reservoir because anglers do not distinguish between walleye and sauger when asked what species were released. To the majority of anglers, all percids are walleye when fishing at Lewis and Clark Lake. Length frequency by 10mm length group is charted along with released fish (in inch groups). Compliance with the 15 inch walleye length limit was very good with few sublegal fish harvested by anglers. The majority of walleye harvested were between 15 and 20 inches, however, 20% of the fish measured by the creel clerk were over 20 inches with 8.7% over 22 inches. The total number of walleye measured during the angler creel was 1,096. (Note: 15 inches = 380 mm)

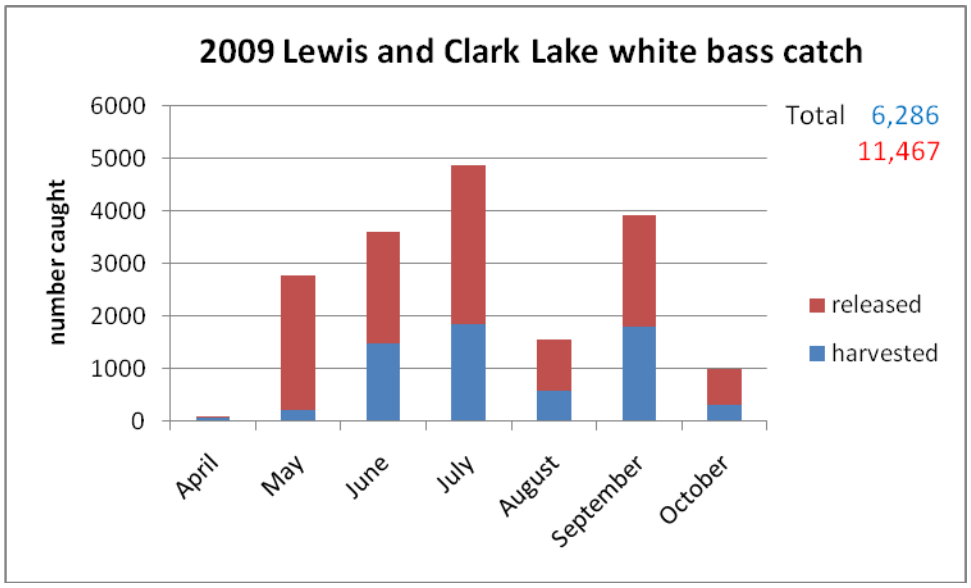


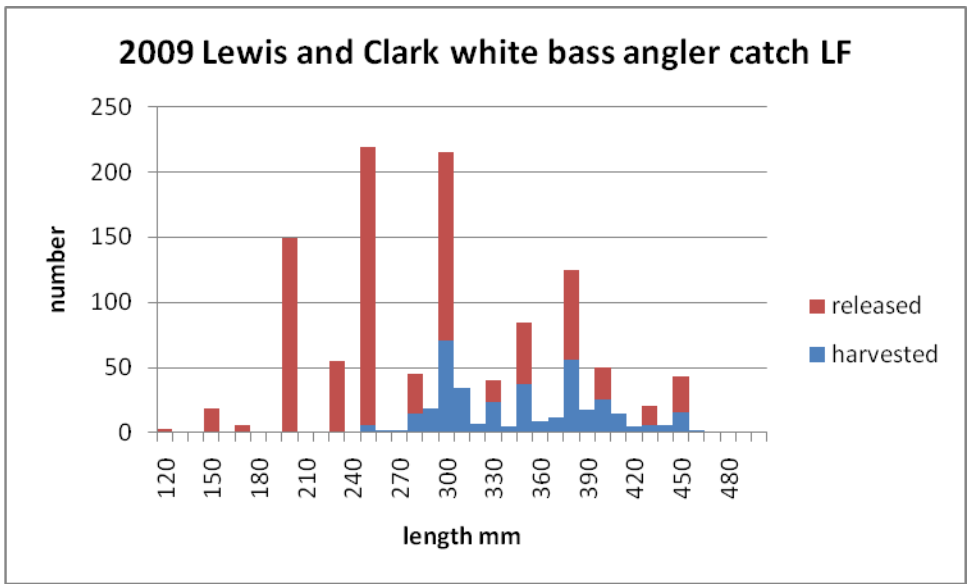

2009 Lewis and Clark Lake walleye angler catch LF
number
600
500
400
300
200
100
0
130
170
210
250
290
330
370
410
450
490
530
570
610
650
690
730
length mm
released
harvested


2009 Lewis and Clark Lake sauger harvest LF
number
16
14
12
10
8
6
4
2
0
130
170
210
250
290
330
370
410
450
490
530
570
610
650
690
length mm
harvested

White Bass

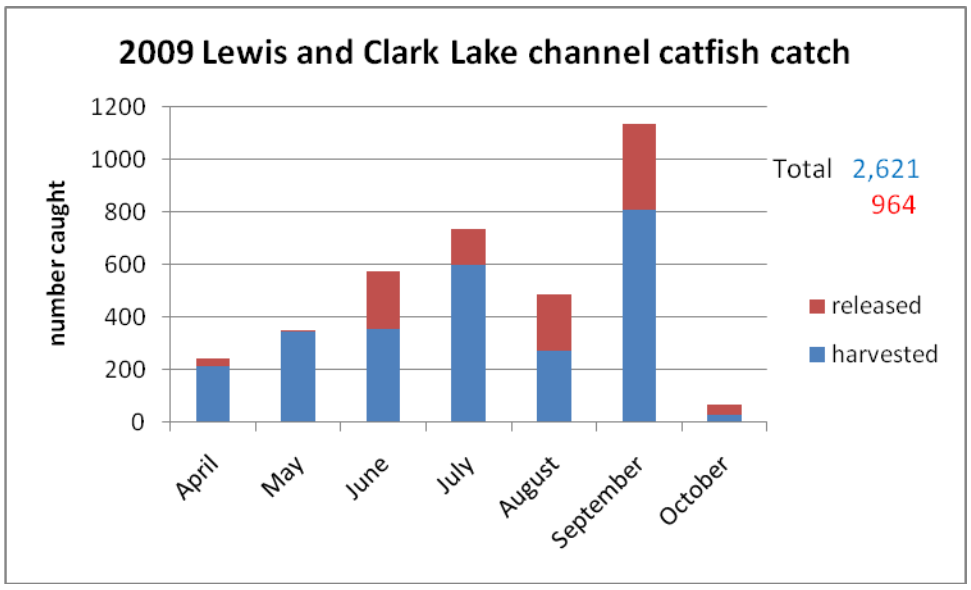
Although not highly sought after, the white bass catch in 2009 was good with over 11,000 white bass caught and about 6,000 harvested. The total catch amount to nearly half that of the walleye/sauger catch. Most anglers catch white bass while drifting and trolling for walleye and by those opportunistic anglers fishing for anything that bites. The length frequency graph of angler caught white bass depicts the quality of the fish in the reservoir. Large year classes of white bass were produced in the reservoir the past three years and this is reflected in the relatively high angler catch. The next 2-3 years should result in good white bass fishing in the reservoir, barring any high water discharge events which tend to flush fish downstream of Gavins Point Dam. The months of July and September had the highest white bass catch.

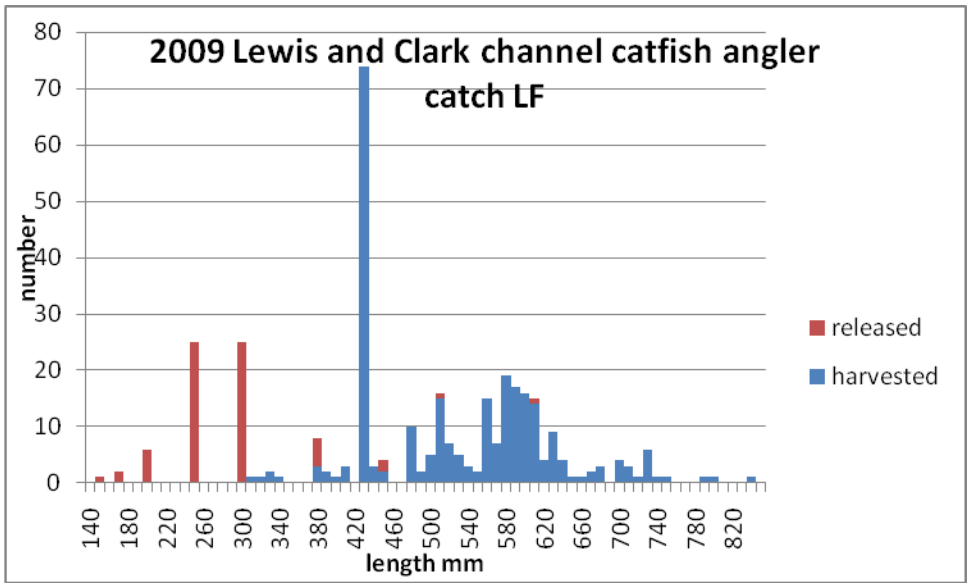




Channel Catfish

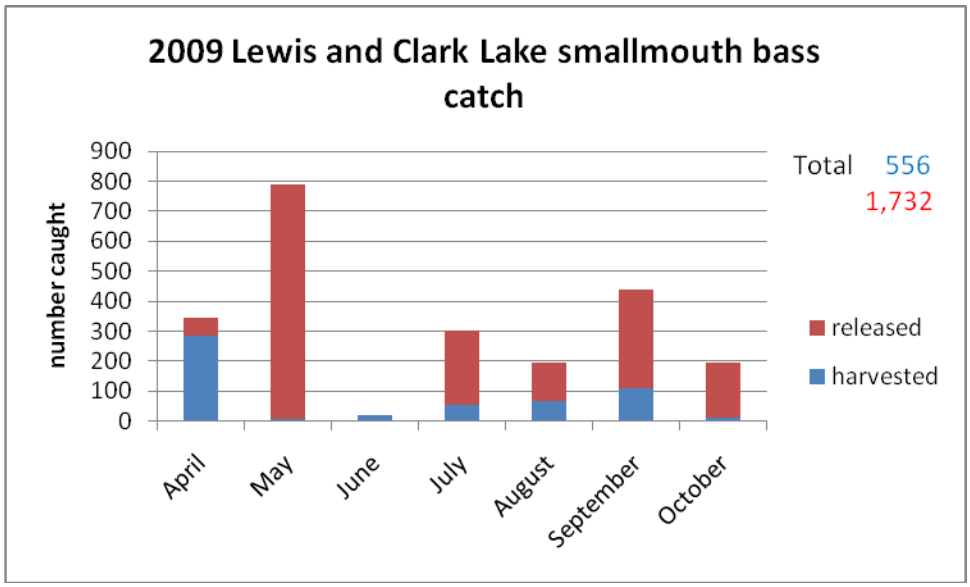
Although low in catch and harvest during the creel survey, Lewis and Clark Lake offers some good to excellent channel catfish opportunity. A daytime creel is typically not conducive to collecting accurate effort and catch of catfish as much of the angling occurs at night and at select locations. Channel catfish effort and catch increased in the summer and early fall. The length frequency graph indicated the high quality of catfish caught by anglers.

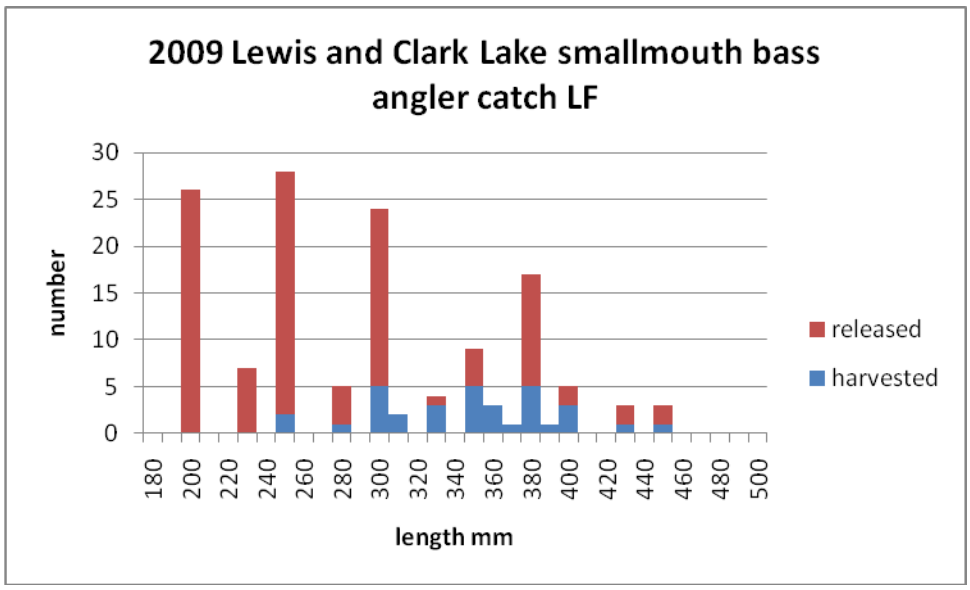




Miscellaneous Species

Smallmouth bass have a small but loyal following of anglers on Lewis and Clark Lake. Most are caught in the delta at the upper end of the reservoir, seasonally along the bluff banks, the face of the dam, and along rock structure and jetties found around the lake, usually near recreation areas. May was by far the best catch for smallmouth bass in 2009.





Seasonal opportunity for northern pike, bluegill and crappie exist in various areas of the reservoir. Spring finds anglers fishing the Springfield, SD to Santee, NE marsh/delta area for these species. In addition, the Springfield Bottoms area upstream of Springfield, SD is a destination for shore anglers in early spring for bass, catfish and crappie. Crappie are caught by anglers in Weigand Marina bay and the Yankton Marina bay during May and June and again in the fall months. Freshwater drum are caught throughout the lake, though most are not harvested.